

CLAIMS

1. A member for a semiconductor device comprising a base member made of an alloy or composite mainly composed of Cu and W and/or Mo, wherein a coating layer made of a hard carbon film is provided on at least a surface of the base member on which another member for the semiconductor device is bonded with a resin.

2. The member for a semiconductor device according to claim 1, wherein the alloy or composite mainly composed of Cu and W and/or Mo contains Cu of 5 to 40% by weight.

3. A member for a semiconductor device comprising a base member made of an alloy or composite mainly composed of Al-SiC, wherein a coating layer made of a hard carbon film is provided on at least a surface of the base member on which another member for the semiconductor device is bonded with a resin.

4. The member for a semiconductor device according to claim 3, wherein the alloy or composite mainly composed of Al-SiC contains SiC of 10 to 70% by weight.

5. A member for a semiconductor device comprising a base member made of an alloy or composite mainly composed of Si-SiC, wherein a coating layer made of a hard carbon film is provided on at least a surface of the base member on which another member for the semiconductor device is bonded with a resin.

6. The member for a semiconductor device according to claim 5, wherein the alloy or composite mainly composed of Si-SiC contains Si of 10 to 35% by weight.

7. The member for a semiconductor device according to any one of
5 claims 1 to 6, wherein the coating layer has a thickness of 0.1 to 10 μm .

8. The member for a semiconductor device according to any one of claims 1 to 7, wherein the surface of the base member on which the coating layer is formed has a surface roughness of 0.1 to 20 μm in R_{max} .

9. The member for a semiconductor device according to any one of
10 claims 1 to 8, wherein pores in the surface of the base member on which the coating layer is formed have a depth of 100 μm or less.

10. The member for a semiconductor device according to any one of claims 1 to 9, wherein a plating layer of Ni is provided between the coating layer and the surface of the base member on which the coating layer is formed.

15 11. A semiconductor device employing the member for a semiconductor device according to any one of claims 1 to 10.